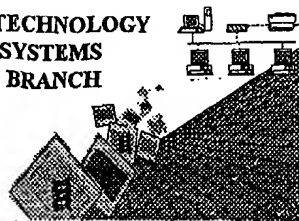


BIOTECHNOLOGY  
SYSTEMS  
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**RAW SEQUENCE LISTING**  
**ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/404,520A  
Source: 1600  
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2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
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1600

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/404,520A

DATE: 01/07/2004

TIME: 12:07:42

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Output Set: N:\CRF4\01072004\I404520A.raw

2 &lt;110&gt; APPLICANT: Cao, Yongwei

3 Ghodssi, Azita

4 Hinkle, Gregory J.

5 McIninch, James

6 Timberlake, William E.

7 Yu, Jaehyuk

9 &lt;120&gt; TITLE OF INVENTION: Emericella nidulans Genome Sequence and Uses Thereof

11 &lt;130&gt; FILE REFERENCE: 38-10(15498)A

OK 13 &lt;140&gt; CURRENT APPLICATION NUMBER: US/09/404,520A

OK 13 &lt;141&gt; CURRENT FILING DATE: 1999-09-23

E--&gt; 13 &lt;160&gt; NUMBER OF SEQ ID NOS: 44345

44347 (p.14)

pp 1-16  
 Not Comply  
 with the Database Needer

## ERRORED SEQUENCES

1357 &lt;210&gt; SEQ ID NO: 24

1358 &lt;211&gt; LENGTH: 1314

1359 &lt;212&gt; TYPE: DNA

1360 <213> ORGANISM: Aspergillus nidulans <2207

1362 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

OK 1363 &lt;400&gt; SEQUENCE: 24

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1555 &lt;211&gt; LENGTH: 1135

1556 &lt;212&gt; TYPE: DNA

1557 <213> ORGANISM: Aspergillus nidulans > 12207 insert

1559 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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1921 &lt;212&gt; TYPE: DNA

1922 <213> ORGANISM: Aspergillus nidulans > 12207 insert

1924 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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2063 <213> ORGANISM: Aspergillus nidulans *insint 2207*

2065 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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2408 <213> ORGANISM: Aspergillus nidulans *insint 2207*

2410 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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2465 &lt;213&gt; ORGANISM: Aspergillus nidulans

2467 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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2614 gtctgagtca gaaactaggg agttggggat gtcgtgtcta cagctcaatc tgcaaccacg 4380
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2624 tctttatca actactaaaa gtctgctttc tacggaactg cgacactgtt gctctgaagt 4680
2626 tagtaccac tgtgaccatg atccaataaa aatcactgag atttgatcca gcagtgcgct 4740
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## RAW SEQUENCE LISTING

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Output Set: N:\CRF4\01072004\I404520A.raw

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2664 cagtggacaa cccaataact gtggtataaa atgcatgaag gcacaaggta ataaggatgc 5880
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2676 aattagaagg gcgtagcaga ctagactgat attataagca aatacgtcag gcgaccatag 6240
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2696 aggtaagtgc tttctgtatc acctctcgat aagccttctt aaagatatta tgaggaatag 6840
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2780 <213> ORGANISM: Aspergillus nidulans insit 2207
2782 <223> OTHER INFORMATION: unsure at all n locations
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2789 aacctcgatc ctactggaaa cgaacagtga gccttgcgtc ttcaatgcct gcccgataaa 180
2791 caaatcaatt tctcctcttt acttgaggcc ttcttgtctc gcgttggaagt cggcaatcga 240
W--> 2793 ctgactgacg taaaacaacg gtcccagggg aconctgaac tgattcgtcc cttctgttca 300
2795 gaagacgcgt ggtctgaccg cgatccccca ggttgccgat aacactgtca gtcactgtta 360
2797 gtaaacgac tagcgtggac tgaaggttta acaagctgga ttga 404
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2701 <211> LENGTH: 3496
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2703 <213> ORGANISM: Aspergillus nidulans insit 2207
2705 <223> OTHER INFORMATION: unsure at all n locations
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7758 caaactttat cactctacgc aagctgtcaa cgccatcgtc ggcatcgaag cagacacaaa 1560
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8084 <213> ORGANISM: Aspergillus nidulans msl 2207
8086 <223> OTHER INFORMATION: unsure at all n locations
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8095 cgggtcaaca cgcgcggaca gtttttcgtc gcccgcgagg cgtatogcca tctgctgaa 240
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8107 cgcgtggctg tcgccgctaa atcgggtcgg attaccggtt gacgtggccc cggttgctcg 600
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8111 gccttttagat aagc 674
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9220 <212> TYPE: DNA
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9223 <223> OTHER INFORMATION: unsure at all n locations
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9230 ccgacatggc cagaatccat gctgcgttga cgccactcgg gatctctatc gcaaaactata 180
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9716 &lt;211&gt; LENGTH: 880

9717 &lt;212&gt; TYPE: DNA

9718 <213> ORGANISM: *Aspergillus nidulans* *msl 2207*

9720 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

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 9727 gctgactgga caggttgga acagaaatc ctgataggat ctatgtccat ttggtctata 180  
 9729 ttatggttca ggggttggtg ggatttgga gctggtttct gggcgggccc gtagcaccgg 240  
 9731 tcggcgcgct gaacaagttc aatatattca ttatatgaga ggtcaaagat agagtcgttc 300  
 9733 aaactttcca atatctggtg gagattgggc cggagccccc gatggagcgt ggacacacac 360  
 9735 aaaatatctg gccatgagtt tgtattggcc tcgtacaaga gcctttcaaa acgagcaagg 420  
 9737 taagccacaa gcaattcatc atccctttaa gagatagtgg agaatacgtg tatggcttct 480  
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 9741 tattgttggt tatcttctgc agactggcag aggtgtagga ccgaagcctg ctatggctgt 600  
 9743 tctaattagt cctatacata gtcaaaggca tcagctctgg tgagctgac agatcagagt 660  
 9745 tttgctctga tagatggaag ccatgtacaa ggtatgtata gtttgccatt gaagcaaggc 720  
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 9749 ctcagtacag agggatcaag gtctatcaag ttgctgaatt caagcattgc tctggagctg 840  
 9751 ttgaagtcac atgtggctct gagttcttgc tgagctgctg 880

9826 &lt;210&gt; SEQ ID NO: 120

9827 &lt;211&gt; LENGTH: 233

9828 &lt;212&gt; TYPE: DNA

9829 <213> ORGANISM: *Aspergillus nidulans* *msl 2207*

9831 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

## E--&gt; 9832 &lt;400&gt; SEQUENCE: 120

9834 atggtgatta taagttctcg cgaaggcgaa acgagatgga cagcattgca aattactgct 60  
 W--> 9836 ataagggatc gctancaccg aacgcacaat agtgtgtcgt acaggctgcg gaccatgag 120  
 9838 tgttgccctc gatgtgtcaa ctogtagtct ctattttggc cagcgcgca agtagtatgt 180  
 9840 catgcatagg atggtgctgc agacaacctg tgtatcttgg ccggacaatg tag 233

10075 &lt;210&gt; SEQ ID NO: 129

10076 &lt;211&gt; LENGTH: 710

10077 &lt;212&gt; TYPE: DNA

10078 <213> ORGANISM: *Aspergillus nidulans* *msl 2207*

10080 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

## E--&gt; 10081 &lt;400&gt; SEQUENCE: 129

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10591 &lt;211&gt; LENGTH: 171

10592 &lt;212&gt; TYPE: DNA

10593 &lt;213&gt; ORGANISM: Aspergillus nidulans

10595 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

E--&gt; 10596 &lt;400&gt; SEQUENCE: 141

W--&gt; 10598 agtagccagc ggtgtcaaga atctgaatac cgeccnnnnn nnnnnnnnnn nnnnnnnnnn 60

10600 nnnnnnnnnn nnnnnnnnnn nnnnnnnctg cagcaacgga atggttgctg aaattattac 120

10602 tatagatcga gccagcacgc caggcaccgc cgctaagcca gacaagtacg t 171

10785 &lt;210&gt; SEQ ID NO: 144

10786 &lt;211&gt; LENGTH: 1485

10787 &lt;212&gt; TYPE: DNA

10788 &lt;213&gt; ORGANISM: Aspergillus nidulans

10790 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

E--&gt; 10791 &lt;400&gt; SEQUENCE: 144

10793 ggaaagcatc atcttggtcg atagtgggtg aggatataatt ctaccccgta attttttcta 60

10795 taagcctatc acgttaacac ctcttaccac cctgtcactt cggccaagtc cactctccat 120

10797 ccgtttcttg cgccgttgaa gcttgaagag ggtgatggct gcacgcagca ctgtctttat 180

10799 acctggccat tgcatttgct tctttactat ccaaaatttc ctgctcgat ctcccagaat 240

10801 tacaggccct gcttctaaac agatagtctc agccgtgaca gctggctcta tccgttgctc 300

10803 gagaaatacg ggccagggtg cctccgcgcg attttatatg gcaatccaag cactaaacga 360

10805 ttcgatgcaa ttgatgaaac tcctcgca gaactacac ctacgcgag gtgatataac 420

10807 tgcccggtgca ggtagcgcat tagggctttg tacatgctac gcgcaacgca aaactcaaat 480

10809 catgttttta cgcttgagac catcggtata gtgttatctt cttaaaggac gtacctacca 540

10811 gcgtttctga caactatttt attatagcgg taactttgca gatatagtct ttatgaagg 600

10813 ttctgcaaag tatgagccgt caatttcgcc aggatattct ggccactgg gggtgagatt 660

10815 gttggccacg tgatataaat ggctgatct ccaaccctg acgaactgac cctcaatat 720

10817 accgtattga gagacacaga agaagagatt tatcgccaac gagatagata gtcaatcgct 780

10819 atatggcatc cgctccttag caagctacat ccgtgtagtt gatacagttt ccttctgccc 840

10821 tttccctttt gagcgtacat gcgtatctac aacaatgcga ttattacca aaacaagtca 900

10823 ggtccaaata ggccttaaaa cgccgcagtt catctaattg agcaatggaa ctaggggtcc 960

10825 tcgaagcggg ctgcgctgct ccgtaacgc ctgagtccaa tccccgcccg ccccgctca 1020

10827 aatcactcct ataactctca aaattttcca cgtacctggg aatctctcag atttttccaa 1080

10829 ttggcgctcc gccaccgct cacttttct tccaggcgaa aagacagcta gcatgtcatc 1140

10831 tgaaaccatc cctcagaagc agaagcacc gcaaggacag ggcgccaaga gctcccgatg 1200

10833 gcgtaacgcg cttggcaggg actgggcttt ggtatccct ttcaccggt taatgaccgc 1260

10835 agtaatcggg tgggtgcttg gaatcctgaa tgcagaaatg gcgttggaag cgccttttg 1320

10837 atttttccag cgtatcgata tagacagcca ttgggaggag caccgaaaag aggtgaaaga 1380

W--&gt; 10839 caotttcatg gccagctggc agcctaagc caaacatgcc tggggtaaga ngatcatcag 1440

10841 cttcaaattc ggcttctttt ctatttttat tattatttg tggtt 1485

11004 &lt;210&gt; SEQ ID NO: 149

11005 &lt;211&gt; LENGTH: 608

11006 &lt;212&gt; TYPE: DNA

11007 &lt;213&gt; ORGANISM: Aspergillus nidulans

11009 &lt;223&gt; OTHER INFORMATION: unsure at all n locations

E--&gt; 11010 &lt;400&gt; SEQUENCE: 149

11012 ctagaactaa gaactaggga tcaattacag gaagattcgg acaaagaata gatggctaac 60

11014 tacgatctat gccaaactatt tcgaggctaa aggagtgtaa tcaaagaaac gaatagggtc 120

11016 aactatggct gctatggccc caggggtggg aagaatcagg caagccctag atcacctgca 180

## RAW SEQUENCE LISTING

DATE: 01/07/2004

PATENT APPLICATION: US/09/404,520A

TIME: 12:07:42

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

```

11018 cgtccaccca gaagcgggtg tcgtcagact gatatttcga atcactctca atctgctgct 240
11020 gagtccatgc catagcgtcg atgtatcctc tagaagaata tcagtgaaga ccccccaaaa 300
W--> 11022 tcacaatcgt tggatggcga gatactcgcc cttgatgtcc tcgggtgagg ngattgttca 360
11024 caccagactc gcatttgcgg tggccgctga accagatctc atatcaaat ggttttcacc 420
11026 ttcgtagcga gcttgaatat ccttggccaa gtcggagctt gcattccatg ggtcaataga 480
11028 gagacagagg ccggcgagct tgacccggaa gaagagccct tatttgagaa tggagccggt 540
11030 atcgccctgg tcgatgggcc tgcctagaca ctttgacgcc caatgaccca gaatgaacaa 600
11032 ttctggtt                                     608
11279 <210> SEQ ID NO: 154
11280 <211> LENGTH: 2081
11281 <212> TYPE: DNA
11282 <213> ORGANISM: Aspergillus nidulans insert <2207
11284 <223> OTHER INFORMATION: unsure at all n locations
E--> 11285 <400> SEQUENCE: 154
11287 tgcctcggat actcgaaaga gtaacatgtc ggtgtgcagc agcggcgaga gaacccaacc 60
11289 gttcctcttt tgatacatgt ctcccagttg aggatacagg taaccaggta atcaacaact 120
11291 tggatgatac tgcctgatgg cctcgtgaag ctgcacaggg ccgccgttgg acataaaaaag 180
11293 atcaatatcc cgcagttgag ggatcttatg aatgaggtca cttaccctgg cgttgaggtt 240
11295 cgttgaacaa cctcgcactt tgggagtgtc tgaactccc aagttctcag cttgaagcgc 300
11297 agaccggagg ccgctgtagg cacgaagcac tgggtgcgct cgtgggcccgc taatcggata 360
11299 ccattgggagc atgatactga gtcgttttgc gtgaacgagc acacggctgg cttctggctg 420
11301 ccggagaaac ttaagaggca ttatccttga gtctacgtat gatgatatgc tcgtacaaga 480
11303 gcgacctggt aacctgttt caetcttggc ccacctcatc acgtatctgc agacacggta 540
11305 agatatacca ccattgaaaa aggggttaacg tacttgtctc ggaatcagac atttaaacctc 600
11307 tgatggcagt ccgtccatgt tttggtagag ggggttgatg gtgtgcggag ggttttaaaa 660
11309 gaaatgctag cttggggaac atggctttct ttataatca ttctaccag agcttaccta 720
11311 acagcacaga atagcctact tctgcctag cggaaaacat atctagacct agatagatct 780
11313 cctgctctga tctccccct ctagccgcac ctaaaaccaa caacacctta gacatcagtc 840
11315 tccccacact aattcttcta gaaactgacg atctcgtgtg tcccccttct cgcacgtac 900
11317 ggtgggagcc cgtaaacgtg ccagtttttc tcaactgcaga gtggcttctt ccaatttggc 960
11319 aggtagtatt tgaggcagct cagcctcccg aaattgactt tatccttga gagtatctgt 1020
11321 tatgaatgct caaaggggaa agggtagaag gaagctgcat caactacacg aacgtagcct 1080
11323 actaaggata ggatgccata agacgattga ttctctatct tgatgacgat agttctcact 1140
11325 tcttcaatgt acaactctc gagggatcag gccaggggcc agagatcatg ccatacagat 1200
11327 cagtggtcac gtgacacgag gctcaacatg atatatcgt atcagtatcc tatgtgataa 1260
11329 gtctgttctt cctcgtccaa aaatcaccaa cagtattaat cgataaatga tgtgctcggt 1320
11331 agtatgttag atatataacc tcacttctat aactatagat ttgggataca ggtacagaac 1380
11333 catgtcttgc tatgtagggt cataagccag tgtcataact taattcaatt ttcttgccaa 1440
11335 gagactgaca aacattgtgt atcattgcgt cttttaagta cggcactactg ttcgaacaaa 1500
11337 agggcaaaaa cgtatttaac acgtaacgag tttgtaccag ctgagattct gccagcagaa 1560
11339 atttgattac atatgcagga tagcttgctt agtttcaccg actggttact cctcctaagc 1620
11341 accacgtaaa ggtgcaagct atgctcaggt gaggtacaca gcccgtaacc ctaggcagtg 1680
11343 ctggtgttcg tacaggaaaa tcaagaaagc tcgtacggac cttataagac aatcggattg 1740
11345 tctcctatccc cttcagggaa atcaaggtag ataggatttt cagcctcacc ttccactgga 1800
11347 tcaaggatga taaccagctg gtttgagcgc cctggggta gaccaagccc atcaccagc 1860
11349 ataccctgcc agtgctcgtc togtacggag cagcaatgcc catggtcacg ccatttacaa 1920
11351 ttggcgcagc atccgttgaa tgccccaggc acatggcgcc attcagggaa gactggtctt 1980
11353 tcttgacgga gcggcatcct ttacagggct ggtcagacga gtccccaga ctgtatagca 2040
W--> 11355 ttgcattgat gtonangggc cgggtgttga taattgatgc a 2081

```

## RAW SEQUENCE LISTING

DATE: 01/07/2004

PATENT APPLICATION: US/09/404,520A

TIME: 12:07:42

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

11958 <210> SEQ ID NO: 166  
 11959 <211> LENGTH: 173  
 11960 <212> TYPE: DNA  
 11961 <213> ORGANISM: Aspergillus nidulans *insert 2207*  
 11963 <223> OTHER INFORMATION: unsure at all n locations  
**E--> 11964 <400> SEQUENCE: 166**  
 11966 taaagggatc tagaatcgtg attatgagtt tgataagggg aagcacatgg aatacattgg 60  
**W--> 11968 aaattagtgc tataaggcat cgctangaca gaaggcagaa tactgtgttg tataggttcc 120**  
 11970 gagagaatga ctgttgagtc gatgtgttca ttagtggttt ccattttagt cag 173  
 13005 <210> SEQ ID NO: 177  
 13006 <211> LENGTH: 712  
 13007 <212> TYPE: DNA  
 13008 <213> ORGANISM: Aspergillus nidulans *insert 2207*  
 13010 <223> OTHER INFORMATION: unsure at all n locations  
**E--> 13011 <400> SEQUENCE: 177**  
 13013 cctcggacaa caaggtctac ttccagctgc accagaacgg ctccctcgaca gttaaacacgg 60  
 13015 gcccgaatgg attggagcgt ctcgactaca tcatctctgg ggccgagaag cgcggaatca 120  
 13017 agtttggtcat ccggttggtt aactactggg acgactttgg tggcatgaat gcctacatca 180  
 13019 ggcctatgg cgcgacaag ccggttggtt acaccaatga taagattcag gctgcataac 240  
 13021 acgcctacgt caaggccgtg gtgagccgct atgttgactc ccggcaatct ttgcctggga 300  
 13023 gttggcaaat gagccccgtc gcagtgggtg cgacacgtcc atcatcaatc agtggcgac 360  
 13025 gaaaaccagc agcttcatta aatccctgga tccaaaccat atggtagcca tgggcgacgg 420  
 13027 tgagtccctt gaatctccct ctctctggtc gtagaccgcc gctaagaggg gatctctctt 480  
 13029 agagggcatt ggcctccctg gtgacagcaa ctatccctac tctactacg aaggcaacga 540  
 13031 ctttgcaactg aaccttgcca tcccgacat tgactttggc actctccatc tctacaccac 600  
**W--> 13033 cgactgtacg tatctnccgg atgaccagat tctgcgttct ctctccatat cgggtgctaa 660**  
 13035 tgacttccag ggggctgag caacaactcg tggggcaaca agtgggtaca ag 712  
 13632 <210> SEQ ID NO: 183  
 13633 <211> LENGTH: 1245  
 13634 <212> TYPE: DNA  
 13635 <213> ORGANISM: Aspergillus nidulans *insert 2207*  
 13637 <223> OTHER INFORMATION: unsure at all n locations  
**E--> 13638 <400> SEQUENCE: 183**  
 13640 atgataagca cagcgtatcc cgtttggggt aacgacggcg agggaaatagc accggacttt 60  
 13642 ataacatcgc tgtcaaaaagc tccgacctct cattagatc ccgtagtgtg tctgcctcaa 120  
 13644 agaaatagaa aagatttggg tgaccgtaag acaaacacac ggaatggcac aagcaaggcc 180  
 13646 agcagagtgc tctggaccga cagtgggagt gtcaagacag ggcgagacgc agcgtatgga 240  
 13648 atgatcgttc ctagtgttcc ctgtaagaaa catcgaagtg gggtagtcga ttgcactaca 300  
 13650 agtataacga tcttgagtgg ctgaacggag gaaaacgggc agaaccgctt cagtaacagc 360  
 13652 tgagcctcgt gagtggcga atctgcact taatttttc tcagcacagt gacagtttct 420  
 13654 ggttgggcca gctggcgctt cttaagtaga ggggccgtag gctccataga tcagactgcc 480  
 13656 tccgggataa aaggtcacat ctccctcaa gcagtcaatg tacttacggg aaacatggaa 540  
 13658 acatgagtca acttgacaga gtgggcatag ctttgttatc tccgttcgag gtcgggcaat 600  
 13660 tggttaagctc acttctttgt cgagtactga atatacccat atttcgaaga gaattatggt 660  
 13662 tgtgtgttgc gtgagttgtc gtaggtgtgc cgattgtaca tcaagaccgg tgcttgggat 720  
 13664 tgcgaaatc cttgctgctg ccggttaagat gccagcgtct ggtatctccc tggtaacagg 780  
 13666 ctcttgggca acttaagacc tattttcaat catgaaatca gcgttcattg agtgagtgt 840  
 13668 gagtgaattc gaagaagtat acttgccgac ggttggaaaa acaggaacgc tggttccaca 900  
 13670 ccaaattggt gaccgcccac cattccctac tcggaagagg aatcacgagt ctgctgatgt 960

**IMPORTANT**  
 The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

**IMPORTANT**

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/404,520A

DATE: 01/07/2004

TIME: 12:07:42

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

13672 catcggttcc acgtgatgca cgcgcggtct tgagcttccc caagctgggt actgggagaa 1020  
 13674 gcttcagggt tcagcattaa gggctcttggt caatgtcact gacgcccgggt tagcgtccta 1080  
 W--> 13676 tcaatctcaa tctagctttc agcgtcttnt caagtccatc gccgggtcctg ttccggatca 1140  
 13678 ccategctat ctncctgtgt atcacgggtt tccggcgctc caccgagctt tcgctcctta 1200  
 13680 gccgcctctg tccctccttc agctcagttt ctgtctgacc tagcg 1245

*Important* The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

t  
ent

09/404,520A 14

<210> 44347 *last sequence in submitted file*  
<211> 21  
<212> DNA  
<213> Aspergillus nidulans  
  
<400> 44347

gttctcgaga cgagcgatcg c

21



VARIABLE LOCATION SUMMARY  
PATENT APPLICATION: US/09/404,520A

DATE: 01/07/2004  
TIME: 12:08:40

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt  
Output Set: N:\CRF4\01072004\I404520A.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:24; N Pos. 211  
Seq#:28; N Pos. 664  
Seq#:33; N Pos. 1020  
Seq#:37; N Pos. 1168  
Seq#:45; N Pos. 586,757,758  
Seq#:47; N Pos. 6706  
Seq#:51; N Pos. 274  
Seq#:80; N Pos. 3456,3461  
Seq#:84; N Pos. 619,624  
Seq#:108; N Pos. 188  
Seq#:117; N Pos. 750  
Seq#:120; N Pos. 75  
Seq#:129; N Pos. 656  
Seq#:141; N Pos. 36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54  
Seq#:141; N Pos. 55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73  
Seq#:141; N Pos. 74,75,76,77,78,79,80,81,82,83,84,85,86,87  
Seq#:144; N Pos. 1431  
Seq#:149; N Pos. 351  
Seq#:154; N Pos. 2054,2056  
Seq#:166; N Pos. 86  
Seq#:177; N Pos. 616  
Seq#:183; N Pos. 1109,1153  
Seq#:195; N Pos. 4195  
Seq#:197; N Pos. 830  
Seq#:205; N Pos. 3103  
Seq#:209; N Pos. 785,793,824  
Seq#:220; N Pos. 16,33,34,74  
Seq#:233; N Pos. 447  
Seq#:236; N Pos. 146  
Seq#:245; N Pos. 316,411  
Seq#:275; N Pos. 502  
Seq#:285; N Pos. 1544  
Seq#:304; N Pos. 912  
Seq#:310; N Pos. 671  
Seq#:324; N Pos. 1508  
Seq#:325; N Pos. 1222,1223,2378,2382,2427,2608  
Seq#:334; N Pos. 803,807  
Seq#:347; N Pos. 2863  
Seq#:355; N Pos. 5912  
Seq#:360; N Pos. 2289  
Seq#:363; N Pos. 18  
Seq#:365; N Pos. 519  
Seq#:367; N Pos. 2039

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/09/404,520A

DATE: 01/07/2004

TIME: 12:08:40

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

Seq#:403; N Pos. 73

Seq#:425; N Pos. 620

Seq#:426; N Pos. 1004

Seq#:439; N Pos. 47,50,68,138,162,165,243,250,264,272,298,299,301,302,334

Seq#:439; N Pos. 385,420,463,489,493,573

Seq#:441; N Pos. 423

Seq#:457; N Pos. 669

Seq#:460; N Pos. 4388,4397

# VERIFICATION SUMMARY

PATENT APPLICATION: US/09/404,520A

DATE: 01/07/2004

TIME: 12:08:40

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:1363 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:24  
L:1363 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1371 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24  
L:1371 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:24  
L:1371 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:24  
L:1371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:180  
L:1560 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:28  
L:1560 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1584 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:28  
L:1584 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:28  
L:1584 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:28  
L:1584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:660  
L:1925 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:33  
L:1925 M:283 W: Missing Blank Line separator, <400> field identifier  
L:1959 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:33  
L:1959 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:33  
L:1959 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:33  
L:1959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:960  
L:2066 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:37  
L:2066 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2106 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:37  
L:2106 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:37  
L:2106 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:37  
L:2106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:1140  
L:2411 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:45  
L:2411 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2431 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:45  
L:2431 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:45  
L:2431 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:45  
L:2431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:540  
M:341 Repeated in SeqNo=45  
L:2468 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:47  
L:2468 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2692 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:47  
L:2692 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:47  
L:2692 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:47  
L:2692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:6660  
L:2783 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:51  
L:2783 M:283 W: Missing Blank Line separator, <400> field identifier  
L:2793 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:51  
L:2793 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:51  
L:2793 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:51  
L:2793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:240  
L:7706 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:80  
L:7706 M:283 W: Missing Blank Line separator, <400> field identifier  
L:7822 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:80

## VERIFICATION SUMMARY

DATE: 01/07/2004

PATENT APPLICATION: US/09/404,520A

TIME: 12:08:40

Input Set : E:\ENU.corrected SEQ list 12.23.03.rpt.txt

Output Set: N:\CRF4\01072004\I404520A.raw

L:7822 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:80  
L:7822 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:80  
L:7822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:3420  
L:8087 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:84 ✓  
L:8087 M:283 W: Missing Blank Line separator, <400> field identifier  
L:8109 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:84  
L:8109 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:84  
L:8109 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:84  
L:8109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:600  
L:9224 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:108 ✓  
L:9224 M:283 W: Missing Blank Line separator, <400> field identifier  
L:9232 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:108  
L:9232 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:108 ✓  
L:9232 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:108  
L:9232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:180  
L:9721 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:117 ✓  
L:9721 M:283 W: Missing Blank Line separator, <400> field identifier  
L:9747 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:117  
L:9747 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:117  
L:9747 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:117 ✓  
L:9747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:720  
L:9832 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:120 ✓  
L:9832 M:283 W: Missing Blank Line separator, <400> field identifier  
L:9836 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:120  
L:9836 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:120  
L:9836 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:120  
L:9836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:60  
L:10081 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:129 ✓  
L:10081 M:283 W: Missing Blank Line separator, <400> field identifier  
L:10103 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:129  
L:10103 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:129  
L:10103 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:129  
L:10103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:600  
L:10596 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:141 ✓  
L:10596 M:283 W: Missing Blank Line separator, <400> field identifier  
L:10598 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:141  
L:10598 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:141  
L:10598 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:141  
L:10598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:0  
M:341 Repeated in SeqNo=141  
L:10791 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:144 ✓  
L:10791 M:283 W: Missing Blank Line separator, <400> field identifier  
L:10839 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:144  
L:10839 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:144  
L:10839 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:144 ✓  
L:10839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:1380  
L:11010 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:149 ✓  
L:11010 M:283 W: Missing Blank Line separator, <400> field identifier  
L:11022 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:149

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L:11022 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:149  
L:11022 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:149 ✓  
L:11022 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:300  
L:11285 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:154 ✓  
L:11285 M:283 W: Missing Blank Line separator, <400> field identifier  
L:11355 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:154  
L:11355 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:154  
L:11355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:2040  
L:11964 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:166 ✓  
L:11964 M:283 W: Missing Blank Line separator, <400> field identifier  
L:11968 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:166 after pos.:60  
L:13011 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:177 ✓  
L:13011 M:283 W: Missing Blank Line separator, <400> field identifier  
L:13033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177 after pos.:600  
L:13638 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:183 ✓  
L:13638 M:283 W: Missing Blank Line separator, <400> field identifier  
L:13676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183 after pos.:1080  
M:341 Repeated in SeqNo=183  
L:14911 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:195  
L:14911 M:283 W: Missing Blank Line separator, <400> field identifier  
L:15051 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:195 after pos.:4140  
L:15118 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:197  
L:15118 M:283 W: Missing Blank Line separator, <400> field identifier  
L:15146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:197 after pos.:780  
L:15673 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:205  
L:15673 M:283 W: Missing Blank Line separator, <400> field identifier  
L:15777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:205 after pos.:3060  
L:16028 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:209  
L:16028 M:283 W: Missing Blank Line separator, <400> field identifier  
L:16056 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:209 after pos.:780  
L:16661 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:220  
L:16661 M:283 W: Missing Blank Line separator, <400> field identifier  
L:16663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:220 after pos.:0  
M:341 Repeated in SeqNo=220  
L:17374 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:233  
L:17374 M:283 W: Missing Blank Line separator, <400> field identifier  
L:17390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:233 after pos.:420  
L:17457 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:236  
L:17457 M:283 W: Missing Blank Line separator, <400> field identifier  
L:17463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:236 after pos.:120  
L:17884 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:245  
L:17884 M:283 W: Missing Blank Line separator, <400> field identifier  
L:17896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:245 after pos.:300  
M:341 Repeated in SeqNo=245  
L:19129 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:275  
L:19129 M:283 W: Missing Blank Line separator, <400> field identifier  
L:19147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:275 after pos.:480  
L:19734 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:285  
L:19734 M:283 W: Missing Blank Line separator, <400> field identifier

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L:19786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:285 after pos.:1500  
L:20987 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:304  
L:20987 M:283 W: Missing Blank Line separator, <400> field identifier  
L:21019 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304 after pos.:900  
L:21306 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:310  
L:21306 M:283 W: Missing Blank Line separator, <400> field identifier  
L:21330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:310 after pos.:660  
L:21915 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:324  
L:21915 M:283 W: Missing Blank Line separator, <400> field identifier  
L:21967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:324 after pos.:1500  
L:21988 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:325  
L:21988 M:283 W: Missing Blank Line separator, <400> field identifier  
L:22030 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:325 after pos.:1200  
M:341 Repeated in SeqNo=325  
L:22577 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:334  
L:22577 M:283 W: Missing Blank Line separator, <400> field identifier  
L:22605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:334 after pos.:780  
L:23450 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:347  
L:23450 M:283 W: Missing Blank Line separator, <400> field identifier  
L:23546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:347 after pos.:2820  
L:24201 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:355  
L:24201 M:283 W: Missing Blank Line separator, <400> field identifier  
L:24399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:355 after pos.:5880  
L:24620 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:360  
L:24620 M:283 W: Missing Blank Line separator, <400> field identifier  
L:24698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:360 after pos.:2280  
L:24853 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:363  
L:24853 M:283 W: Missing Blank Line separator, <400> field identifier  
L:24855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:363 after pos.:0  
L:25104 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:365  
L:25104 M:283 W: Missing Blank Line separator, <400> field identifier  
L:25122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:365 after pos.:480  
L:25187 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:367  
L:25187 M:283 W: Missing Blank Line separator, <400> field identifier  
L:25255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:367 after pos.:1980  
L:28090 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:403  
L:28090 M:283 W: Missing Blank Line separator, <400> field identifier  
L:28094 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:403 after pos.:60  
L:30085 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:425  
L:30085 M:283 W: Missing Blank Line separator, <400> field identifier  
L:30107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:425 after pos.:600  
L:30118 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:426  
L:30118 M:283 W: Missing Blank Line separator, <400> field identifier  
L:30152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:426 after pos.:960  
L:30961 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:439  
L:30961 M:283 W: Missing Blank Line separator, <400> field identifier  
L:31028 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:441  
L:31028 M:283 W: Missing Blank Line separator, <400> field identifier  
L:32189 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:457

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L:32189 M:283 W: Missing Blank Line separator, <400> field identifier  
L:32294 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:460  
L:32294 M:283 W: Missing Blank Line separator, <400> field identifier  
L:32535 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:463  
L:32535 M:283 W: Missing Blank Line separator, <400> field identifier  
L:32598 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:464  
L:32598 M:283 W: Missing Blank Line separator, <400> field identifier  
L:13 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (44345) Counted (44347)